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Managing the combination of non-alcoholic fatty liver disease and metabolic syndrome

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We read with great interest the review by Moscatiello *et al.* [1] on the importance of targeting all components of the metabolic syndrome (MetS) in the treatment of non-alcoholic fatty liver disease (NAFLD). A few comments may be of interest.

One of the hallmarks of MetS is the presence of too many definitions; the joint interim statement of several major organisations published in 2009 [2] attempts to overcome this issue. In this context, the selection of diagnostic criteria may influence the prevalence of MetS [3].

Apart from other cardiovascular risk factors, possible links between NAFLD and elevated serum uric acid (SUA) levels [4] or chronic kidney disease [5] have been recently proposed. Based on this concept, SUA and renal function should be monitored in NAFLD patients.

The clinical significance of statin use in the treatment of both NAFLD and MetS has been reported [6,7]. Recently, in a *post hoc* analysis of the Greek Atorvastatin and Coronary Heart Disease Evaluation (GREACE) study [8], statin treatment was associated with significantly less vascular events in patients with coronary heart disease (CHD) and NAFLD (68% relative risk reduction) compared with those with CHD but no NAFLD (39% relative risk reduction; $p < 0.007$). Furthermore, in the majority of patients with abnormal liver function tests (LFTs) (i.e., < 3 times the upper limit of normal) at baseline, statins improved LFTs, whereas these biomarkers were worsened in those patients not receiving statins [8]. These beneficial effects of statins on liver biomarkers, along with previously reported favourable changes in renal function [9], support their use in NAFLD treatment.

Declaration of interest

The authors state no conflict of interest and have received no payment in preparation of this manuscript.

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